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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,997	07/29/2003	Michael S. Miskho	P17095	8555

25694 7590 07/18/2006

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EXAMINER	
NGUYEN, TU X	

ART UNIT	PAPER NUMBER
2618	

DATE MAILED: 07/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/629,997

Applicant(s)

MISKHO, MICHAEL S.

Examiner

Tu X. Nguyen

Art Unit

2618

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/12/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-11 and 18 rejected under 35 U.S.C. 103(a) as being obvious over Nozawa et al. (US Patent 6,942,157) in view of Bartschi et al. (US Patent 5,734,976).

Regarding claim 1, Nozawa discloses a method comprising:

receiving an RF (radio frequency) signal over a power plane of a circuit board (see col.1 lines 60-66, col.2 lines 64-66, col.3 lines 12-20), the RF signal corresponding to a digital signal (see 55, fig.7, "decoder" for decoding digital signal), a demodulator (see 54, fig.7).

Nozawa fails to disclose a filter for filtering out unwanted frequencies in the RF signal and demodulating the filtered RF signal to recover the digital signal.

In an analogous art, a transceiver in an IC mounting on a PCB, Bartschi et al. disclose a filter (see 6, fig.1). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Nozawa with the above teaching of Barschi et al. in order to reject other frequencies other than the desired frequency.

Regarding claim 2, the modified Nozawa discloses the digital signal is generated from a first device, the corresponding RF signal is received on a second device, and the first and the second devices are both coupled to the first circuit board (see Nozawa, col.2 lines 64-66).

Regarding claims 3-4, the modified Nozawa discloses said filtering out the unwanted frequencies comprises filtering out a range of frequencies that is out of a range of a preallocated frequency range for communication between devices on the circuit board (see Bartschi, 6, fig.1).

Regarding claim 5, the modified Nozawa discloses generating a digital signal at a first device on a circuit board having at least one power plane, the digital signal to be sent to a second device; modulating an RF (radio frequency) signal based upon the digital signal; and transmitting the modulated RF signal using one of the at least one power planes (see Nozawa, fig.7).

Regarding claims 6-7, the modified Nozawa discloses the RF signal is modulated based on the digital signal in accordance within a preallocated frequency range for the circuit board (see Nozawa, fig.7).

Regarding claim 8, the modified Nozawa discloses receiving the RF signal at the second device (see fig.8); filtering out unwanted frequencies in the RF signal (see Bartschi et al., 6, fig.1); and demodulating the filtered RF signal to recover the digital signal (see Nozawa, 54, fig.7).

Regarding claim 9, the modified Nozawa discloses the first device is on the first circuit board (see Nozawa, col.2 lines 64-66).

Regarding claims 10-11, the modified Nozawa discloses said filtering out the unwanted frequencies comprises filtering out a range of frequencies that is out of a range of a preallocated frequency range for communication between devices on the circuit board (see Bartschi et al., 6, fig.1).

Regarding claim 18, Nozawa fails to disclose a filter for filtering out unwanted frequencies in the RF signal and demodulating the filtered RF signal to recover the digital signal.

Bartschi et al. disclose a filter (see 6, fig.1). Therefore, It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Nozawa with the above teaching of Barschi et al. in order to reject other frequencies other than the desired frequency.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

4. Claims 12-17 and 19, are rejected under 35 U.S.C. 102(e) as being anticipated by Nozawa et al. (US Patent 6,942,157).

Regarding claim 12, Nozawa discloses a first circuit board having at least one first power plane (see col.2 lines 64-65); a plurality of devices (see fig.8), some of which are coupled to the first circuit board, and some of which are coupled to one of the at least one first power planes; at least one RF signal transmitter coupled to some of the plurality of devices (see fig.7), the RF signal transmitter capable of modulating an RF signal based on a digital signal (see 46, fig.7, "encoder" for encoding digital signal) in accordance with a range of preallocated frequencies in a radio frequency spectrum (see col.3 lines 40-50).

Regarding claim 13, Nozawa discloses one of the at least one RF signal transmitters is integrated into one of the plurality of RF devices (see fig.7).

Regarding claim 14, Nozawa discloses some of the at least one RF signal transmitters additionally modulates RF signals in accordance with a range of preallocated frequencies for a device producing the digital signal (see fig.7).

Regarding claim 15, Nozawa discloses wherein at least two of the plurality of devices communicate via signal routes (see fig.13).

Regarding claim 16, Nozawa discloses additionally comprising a second circuit board having at least one second power plane, and others of the plurality of devices are coupled to the second circuit board, and some of which are coupled to one of the at least one second power planes (see col.2 lines 21-24).

Regarding claim 17, Nozawa discloses wherein a sending device coupled to the first circuit board transmits signals to a receiving device coupled to the second circuit board using at least one of the RF signal transmitters (see col.2 lines 21-24).

Regarding claim 19, Nozawa discloses wherein the RF signal transmitter and the RF signal receiver are integrated into a single component (see fig.7).

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tu Nguyen whose telephone number is 571-272-7883. The examiner can normally be reached on Monday through Friday from 6:30AM-2:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Urban, can be reached at (571) 272-7899. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2618

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



June 16, 2006



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